

## Claims

What is claimed is:

1. A method for designing object-oriented software for implementing portlets of a portal, said portlets adapted to be available to a user of the software during a session in which the user clicks on a link of a first page to identify an action object of an Action class and a state object of a State class, said method comprising:

including in the software a Portlet Template that comprises the State class, the Action class, and program code;

including in the State class a performView method for displaying a view of a page;

including in the Action class an actionPerformed method for performing an action and a setState method for setting the state object into the session; and

adapting the program code to execute:

(a) the actionPerformed method of the action object to perform the action,

(b) the setState method of the action object to set the state object into the session,

and

(c) the performView method of the state object to display a view of a second page

that is associated with the action.

2. The method of claim 1, wherein the method further comprises including a portlet code module

2 and a controller code module in the program code, wherein the portlet code module is adapted to  
3 execute the actionPerformed method and the setState method, and wherein the controller code  
4 module is adapted to execute the performView method.

1 3. The method of claim 2, wherein the method further comprises including a BasePortlet class  
2 and a TemplatePortlet class in the portlet code module, wherein the BasePortlet class does not  
3 include a portlet specific method and includes the actionPerformed method and the setState  
4 method, and wherein the TemplatePortlet class is a child of the BasePortlet class and includes at  
5 least one portlet specific method.

1 4. The method of claim 3, wherein the method further comprises including an action listener  
2 method in the BasePortlet class, wherein the action object resulting from the user clicking on the  
3 link of the first page is communicated from the portal to the action listener method.

1 5. The method of claim 2, wherein the method further comprises including a BaseController class  
2 and a TemplateControllerForHtml class in the controller code module, wherein the  
3 BaseController class does not include a portlet specific method and includes the performView  
4 method, and wherein the TemplateControllerForHtml class is a child of the BaseController class  
5 and includes at least one portlet specific method.

1 6. The method of claim 1, wherein a first object of the State class includes a first performView

2 method for displaying a first portlet state of a given page, wherein a second object of the State  
3 class includes a second performView method for displaying a second portlet state of the given  
4 page, and wherein the first and second portlet states are different portlet states.

1 7. The method of claim 6, wherein the first and second portlet states are each selected from the  
2 group consisting of a Normal portlet state, a Maximized portlet state, and a Minimized portlet  
3 state.

1 8. The method of claim 1, wherein the software comprises Java software.

1 9. The method of claim 1, wherein the portal comprises a WSP server.

1 10. A computer system comprising a processor and a computer readable memory unit coupled to  
2 the processor, said memory unit containing object-oriented software adapted to be executed by  
3 the processor to implement portlets of a portal,

4 said portlets adapted to be available to a user of the software during a session in which  
5 the user clicks on a link of a first page to identify an action object of an Action class and a state  
6 object of a State class;

7 said software including a Portlet Template that includes the State class, the Action class,  
8 and program code;

9 said State class comprising a performView method for displaying a view of a page;

10 said Action class comprising an actionPerformed method for performing an action and a  
11 setState method for setting the state object into the session;

12 said program code adapted to execute:

13 (a) the actionPerformed method of the action object to perform the action,

14 (b) the setState method of the action object to set the state object into the session,

15 and

16 (c) the performView method of the state object to display a view of a second page

17 that is associated with the action.

1 11. The computer system of claim 10, wherein the program code includes a portlet code module  
2 and a controller code module, wherein the portlet code module is adapted to execute the  
3 actionPerformed method and the setState method, and wherein the controller code module is

4 adapted to execute the performView method.

1 12. The computer system of claim 11,

2 wherein the portlet code module comprises a BasePortlet class and a TemplatePortlet  
3 class,

4 wherein the BasePortlet class does not include a portlet specific method and includes the  
5 actionPerformed method and the setState method, and

6 wherein the TemplatePortlet class is a child of the BasePortlet class and includes at least  
7 one portlet specific method.

1 13. The computer system of claim 12, wherein the BasePortlet class includes an action listener  
2 method, and wherein the action object resulting from the user clicking on the link of the first  
3 page is communicated from the portal to the action listener method.

1 14. The computer system of claim 11,

2 wherein the controller code module comprises a BaseController class and a  
3 TemplateControllerForHtml class,

4 wherein the BaseController class does not include a portlet specific method and includes  
5 the performView method, and

6 wherein the TemplateControllerForHtml class is a child of the BaseController class and  
7 includes at least one portlet specific method.

1 15. The computer system of claim 10, wherein a first object of the State class includes a first  
2 performView method for displaying a first portlet state of a given page, wherein a second object  
3 of the State class includes a second performView method for displaying a second portlet state of  
4 the given page, and wherein the first and second portlet states are different portlet states.

1 16. The computer system of claim 15, wherein the first and second portlet states are each selected  
2 from the group consisting of a Normal portlet state, a Maximized portlet state, and a Minimized  
3 portlet state.

1 17. The computer system of claim 10, wherein the software comprises Java software.

1 18. The computer system of claim 10, wherein the portal comprises a WSP server.

1 19. A computer program product, comprising a computer usable medium having computer  
2 readable object-oriented software embodied therein for implementing portlets of a portal,  
3 said portlets adapted to be available to a user of the software during a session in which  
4 the user clicks on a link of a first page to identify an action object of an Action class and a state  
5 object of a State class;  
6 said software including a Portlet Template that includes the State class, the Action class,  
7 and program code;  
8 said State class comprising a performView method for displaying a view of a page;  
9 said Action class comprising an actionPerformed method for performing an action and a  
10 setState method for setting the state object into the session;  
11 said program code adapted to execute:  
12 (a) the actionPerformed method of the action object to perform the action,  
13 (b) the setState method of the action object to set the state object into the session,  
14 and  
15 (c) the performView method of the state object to display a view of a second page  
16 that is associated with the action.

1 20. The computer program product of claim 19, wherein the program code includes a portlet code  
2 module and a controller code module, wherein the portlet code module is adapted to execute the  
3 actionPerformed method and the setState method, and wherein the controller code module is  
4 adapted to execute the performView method.

1     21. The computer program product of claim 20,

2             wherein the portlet code module comprises a BasePortlet class and a TemplatePortlet  
3     class,

4             wherein the BasePortlet class does not include a portlet specific method and includes the  
5     actionPerformed method and the setState method, and

6             wherein the TemplatePortlet class is a child of the BasePortlet class and includes at least  
7     one portlet specific method.

1     22. The computer program product of claim 21, wherein the BasePortlet class includes an action  
2     listener method, and wherein the action object resulting from the user clicking on the link of the  
3     first page is communicated from the portal to the action listener method.

1     23. The computer program product of claim 20,

2             wherein the controller code module comprises a BaseController class and a  
3     TemplateControllerForHtml class,

4             wherein the BaseController class does not include a portlet specific method and includes  
5     the performView method, and

6             wherein the TemplateControllerForHtml class is a child of the BaseController class and  
7     includes at least one portlet specific method.

1     24. The computer program product of claim 19, wherein a first object of the State class includes a



2 first performView method for displaying a first portlet state of a given page, wherein a second  
3 object of the State class includes a second performView method for displaying a second portlet  
4 state of the given page, and wherein the first and second portlet states are different portlet states.

1 25. The computer program product of claim 24, wherein the first and second portlet states are  
2 each selected from the group consisting of a Normal portlet state, a Maximized portlet state, and  
3 a Minimized portlet state.

1 26. The computer program product of claim 19, wherein the software comprises Java software.

1 27. The computer program product of claim 19, wherein the portal comprises a WSP server.